

# **The Methodological Pragmatism of Coase**

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## **Abstract**

In this paper we decode methodological aspects of Coasean economics that made Coase one of the most original theorists of the twentieth century. The prevailing neo-classical economic methodology is *deductive*; it relies on theoretical construction and downplays empirical observation. In contrast, Coase professed and practiced *abduction* which is a class of inference that yields explanatory hypothesis for observed phenomena. This approach, which is empirically grounded, theoretically fruitful and compatible with plural methods, can also be found in the work of Oliver Williamson who developed Coase's powerful insights into transaction cost economics. We argue that the real success of new institutionalism lies in its methodology as pioneered by Coase which resembles the epistemological tradition of pragmatism. It is our contention that Coase's methodological pragmatism offers valuable lessons for general economic inquiry today when Marshall's fear of mathematical abstraction eventually taking over the study of real economic system is more real than it ever was.

*Key Words:* Coasean methodology, Pragmatism, Abduction, Williamson

*JEL Codes:* A11, B3, B4

## 1. Introduction

In a recent interview, Coase confessed that he had never done anything that wasn't obvious<sup>1</sup>. However, 'it requires a very unusual mind to undertake the analysis of the obvious' (Posner, 1993; p.205). When Coase was writing his first important article (The Nature of the Firm, 1937) rational choice theory was not yet the ruling paradigm in economics. By the time he wrote his last article 'Saving Economics from Economists' (Coase, 2012) and his last book 'How China Became Capitalist' (Coase and Wang, 2012), economics had re-incarnated several times. But what had not changed was Coase's conviction that economics is *essentially* substantive and that a useful economic methodology is *necessarily* empirical. It was this conviction of his that enabled Coase to exemplify the ideal economist that Marshall had in mind, who "must stand fast by the more laborious plan of interrogating the facts in order to learn the manner of action of causes singly and in combination, applying this knowledge to build up the organon of economic theory, and then making use of the aid of the organon in dealing with the economic side of social problems" (Marshall, 1885).

In 'The Lighthouse in Economics' (1974) Coase launches an attack on the standard theoretical approach to economic problems. Leading economists of the past and present, from Mill to Samuelson, have often used the example of lighthouses to explain the public good problem and have concluded that they *have to be* provided by the government. Yet, as Coase notes, none of them actually studied the provisioning of lighthouses historically, which, in the case of England, were in fact often provided by private enterprises. Coase notes his surprise that, 'how is it that these great men (...Mill, Sidgwick, Pigou, Samuelson) have, in their economic writings, been led to make statements about lighthouses which are misleading as to the facts, whose meaning, if thought about in a concrete fashion, is quite unclear, and which, to the extent that they imply a policy conclusion, are very likely wrong? . . . Despite the extensive use of the lighthouse example in the literature, no economist, to my knowledge, has

ever made a comprehensive study of lighthouse finance and administration. The lighthouse is simply plucked out of the air to serve as an illustration . . . This seems to me to be the wrong approach' (Coase, 1974; p.211). More than thirty years later, in a similar vein (2006) Coase takes issue with the widely acclaimed Fisher Body-GM merger case, which had been accepted as a classical example used in the field of industrial organization to explain 'hold-up' as a reason for vertical integration. In his detailed investigation of the actual operation of lighthouses (Bertrand, 2005) and of the GM-Fisher Body case, Coase's ultimate concern was not how lighthouses were organized and financed, or about the veracity of opportunistic behavior in explaining vertical integration. Rather it was about the proper use of facts in economic reasoning and theorizing. In other words, it was about methodology.

It is hence not surprising that we have seen a growing interest in Coase's unique methodology (Wang, 2003; Mäki, 1998; Posner, 1993; Hsiung, 2001; Peltzman, 2011). Most of these and other writings on Coase's methodology aim to shed light on Coasean economics, or some aspects of it, from his unique methodological perspective as scholars have rightly noticed that Coase's methodology holds a key to understanding his ground-breaking contributions to economics. While building on the existing literature, we have a rather different focus in this paper. Following Medema (1997) and Peltzman (2011), we aim to spell out the broad significance of Coase's methodology to the development of economics. As many in the profession are still in the process of soul-searching in the aftermath of the recent economic crisis (Hodgson, 2009) and the public call for new economic thinking is increasingly loud worldwide, Coase's methodological pragmatism offers a fresh and promising prospect.

But a mere reformulation of the empirical nature of economic methodology in Coasean terms is not enough. Hence we discuss the approach of Oliver Williamson who eventually provided the Coasean intuition a robust theoretical frame. What is finally revealed is that

both of these path breaking institutional theorists followed a methodology which is boldly different from the deduction-based conventional approach in economic theorizing. They followed, what we claim as ‘abduction’, which is a way to move from empirical observation to theoretical construction and not the other way around. The rest of the paper is an exposition on this with the objective of showing the usefulness of Coase’s methodological pragmatism in making economics ‘work’.

## **2. Coasean view of economic methodology**

Although often used interchangeably, the terms methodology and methods are different and have specific connotations. In the words of Mark Blaug, ‘a fatal ambiguity surrounds the expression "the methodology of . . .". The term *methodology* is sometimes taken to mean the technical procedures of a discipline, being simply a more impressive-sounding synonym for *methods*. More frequently, however, it denotes an investigation of the concepts, theories and basic principles of reasoning of a subject...’ (Blaug, 1992; p.xxv). Methodology is a *theory* about the *rules* of scientific methods (Popper, 1959; p.49). Simply put, methodology is the study (or a theory) of methods and hence at least epistemologically, if not rhetorically, different from methods. Specifically, economic methodology has been engaged for the most part with ‘questions of theory confirmation or disconfirmation of empirical theory choice’ (Hausman, 1989). In other words, economic methodology enables us to judge whether a piece of economic work is good science or not. The key methodological positions prevalent in economics literature are the *deductivist*, the *positivist* (Popperian) and the *predictionist* ones. Deductive methodology can be attributed to John Stuart Mill (Hausman, 1989) in whose view matters of economics (‘political economy’ as it was known then) were so complex, and influenced by so many causal forces, that induction<sup>2</sup> was not adequate. Deductivists are content with inferences being drawn or results being derived out of certain initial assumptions and operating rules without the need to look into the actual subject of interest, which in their

view is prohibitively complex. Positivist methodology is associated with Karl Popper's stand that it is almost impossible to prove a theory or hypothesis true, but it is possible to falsify it. This gave rise to what Popper called *falsificationism*, which implies that scientific propositions are those that are, at least theoretically, falsifiable. This distinguishes them from mere 'statements' or unfounded claims that can never be falsified (Blaug, 1992). Predictionism, a special version of positivism, is most closely associated with Milton Friedman and his work 'The Methodology of Positive Economics' (Friedman, 1966). Similar to Occam's razor, Friedman's three basic propositions were (Caldwell, 1993): realism of a theory's assumptions does not matter for its assessment; predictive adequacy should be the main criteria for a theory; simpler theories are preferable to complex ones. He asserts that the main goal of a positive science is prediction (rather than explanation) and that a 'theory which enables one to make reliable predictions is a good theory' (Friedman, 1966; p.7).

Despite the pervasive influence of predictionism in economics Coase (1982) has been an adamant critic. According to Coase, Friedman misses the point that a theory rests its explanatory power, at least partly, on its assumptions, without which prediction is like a sand castle.<sup>3</sup> Coase, in his own research over a long and productive academic life, demonstrated a methodological approach which rests on a substantive view of economics. While it includes some elements of the key methodologies discussed above, it is unique. This we call the methodological pragmatism of Coase. According to Coase, economics is about the economy, not economization. Coase repeatedly urged economists to focus on the working of the economic system. That economics is defined by a substantive subject matter rather than an analytical approach makes Coase a classical economist, but an outlier among his contemporaries. Ever since the publication of *Essay on the Nature and Significance of Economic Science* (Robbins, 1932), the profession has gradually metamorphosed from a substantivist view of economics, which prevailed among the classical economists from Smith

to Marshall, to a formalist definition of economics, which, in the memorable words of Robbins, runs as “the science which studies human behavior as a relationship between ends and scarce means which have alternative uses”. This shift was completed in the able hands of (Becker, 1968) who emphatically denied economics any subject matter, and firmly re-oriented economics as an “approach”, which can be applied to all human behavior and beyond. This radical re-orientation of economics, from a study of “the wealth of nations” (Adam Smith), or of “men as they live and think in the ordinary business of life” (Alfred Marshall), or of “social organization of economic activity” (Frank Knight), to the study of choice and scarcity, coincided with, and was often overshadowed by, the so called postwar “neoclassical synthesis” (Blanchard, 1987), even though its impact on the evolution of economics in the postwar period has been as profound and far-reaching as the latter. Against this rising tide, Coase firmly committed himself to the substantivist view of economics. With this unwavering ontological commitment, Coase put all methodological considerations on trial, with a better understanding of the working of the economy as the judge.

## **2.1 Coase’s ‘direct’ approach**

What follows methodologically is what (Coase, 1988a) called a “direct” approach to the subject matter. This defining feature of Coase’s methodological pragmatism can be best illustrated by the research program on industrial organization that he painstakingly built over the course of his long academic life. From his very first article, *The Nature of the Firm* (Coase, 1937)<sup>4</sup> to the last publications on GM-Fisher Body merger case (Coase, 2000; Coase, 2006) and the “structure of production” (Coase and Wang, 2012), Coase was preoccupied with the economics of production. A most explicit programmatic statement on the study of industrial organization is contained in an NBER conference paper Coase produced in 1972 (Coase, 1972). There, Coase spelled out his “direct” approach. Let us allow Coase to speak for himself. “In my view, what is wanted in industrial organization is a *direct* (emphasis

added) approach to the problem. This would concentrate on what activities firms undertake and it would endeavor to discover the characteristics of the groupings of activities within firms. Which activities tend to be associated and which do not? The answer may well differ for different kinds of firm; for example, for firms of different size, or for those with a different corporate structure, or for firms in different industries. It is not possible to forecast what will prove to be of importance before such an investigation is carried out; which is, of course, why it is needed. In addition to studying what happens within firms, studies should also be made of the contractual arrangements between firms (long-term contracts, leasing, licensing arrangements of various kinds including franchising, and so on), since market arrangements are the alternative to organization within the firm. The study of mergers should be extended so that it becomes an integral part of the main subject. In addition to a study of the effects on the rearrangement of functions among firms through mergers, we also ought to take into account “dismergers” (the breaking up of firms); the transfer of departments or divisions between firms; the taking on of new activities and the abandonment of old activities; and also – something which tends to be forgotten – the emergence of new firms” (Coase, 1972; p. 73).

To bring out the distinctive features of his “direct” approach, Coase compared and contrasted it with the dominant approach that prevailed then, which, we sadly add, still dominates today.<sup>5</sup> To make his comparison focused, Coase singled out George Stigler of Chicago, Joe Bain and Richard Caves of Harvard, three of the leading scholars on industrial organization. Stigler’s *Organization of Industry* (1968; p.1) started by denying the very existence of the subject itself: “Let us start this volume on a higher plane of candor than it will always maintain: there is no such subject as industrial organization. The courses taught under this heading have for their purpose the understanding of the structure and behavior of the industries (goods and service producers) of an economy. These courses deal with the size

structure of firms (one or many, ‘concentrated’ or not), the causes (above all the economies of scale) of this size structure, the effects of concentration on competition, the effects of competition upon prices, investment, innovation, and so on. But this is precisely the content of economic theory – price or resource allocation theory, now often given the unfelicitous name of microeconomics”. Along the same line, Bain’s *Industrial Organization* (1968) reads much like “a special sort of price theory book, dealing with such questions as the effects of concentration and the significance of these supposed effects for antitrust policy”. Caves’s *American Industry: Structure, Conduct, Performance* (1972; p.14) echoes Stigler’s voice: “The subject of ‘industrial organization’ applies the economist’s models of price theory to the industries in the world around us”.

An odd but common view emphasized by Stigler, Bain and Caves is their denial, explicit or implicit, of the very subject matter of industrial organization. They all approached industrial organization as an application of microeconomics. Since economics has become a study of choice, any substantive field of economics from labor to industrial organization must inevitably been seen as an application of economic theory. Consequently, a study of industrial organization invariably begins from price theory and is then extended to the practical concerns of competition and monopoly. This is the antithesis of what Coase called a “direct” approach to industrial organization. As the formalists identify economics as an analytical point of view, economics, including the economics of industrial organization, has no subject matter of its own. For them, the approach that Coase proposed simply cannot work, because there is nothing there to direct their efforts to.

Coase’s direct approach helps us to understand two of his most (some would say “notorious”) important methodological positions, which have been widely misunderstood. First, Coase in his Nobel Lecture admitted that he had made no contribution to “high theory”. The

development of high theory is certainly a defining achievement of economics over the course of the 20<sup>th</sup> century. Indeed, what holds economics together and gives it a distinct outlook is its theoretical core, which is essentially a theory of rational choice. The pursuit of abstract theorizing is readily justified on the ground that economic theory stands as the foundation on which the whole edifice of modern economics rests. By contrast, in Coase's research program, theory for the sake of theory has no room. The *raison d'être* of economics, including economic theorizing, is to improve our understanding of how the economic system works. The only legitimate role for economic theory is to shed new light on the working of the economy. Otherwise, it denigrates into an intellectual game. Coase's reservation toward high theory has led many to characterize him as anti-theory (see for example, Posner, 1993). But as we will show in a later section, far from that, this is only a manifestation of Coase's skepticism toward deduction, which is poised as the only legitimate mode of economic theorizing in the neo-classical era.

## **2.2 Comparative institutional analysis**

Second, Coase was a founding father of law and economics (Hovenkamp, 1995), which is widely regarded as the most successful program of economic imperialism – the campaign of economists, equipped with economics as a toolkit, to colonize areas that used to be studied exclusively by sociologists, political scientists, and legal scholars. Coase's lack of interest in economic imperialism, and particularly, the economic analysis of law, has puzzled many (Posner, 1993; Landes, 1997). Economic imperialism is inevitably a development of the formalistic view of economics. Once economics is viewed as a versatile approach, it is bound to be applied everywhere. Coase objected to economic imperialism when it led economists away from the real world economy, which, should be the subject matter of economics. Any distraction that takes economists' eyes away from the subject matter, in Coase's view, does a disservice to the development of economics.

However, the defining feature of Coase's methodology is his comparison.<sup>6</sup> What enables a market economy to function and determines its performance is a network of institutions, including the market, the firm, and the law, as well as social norms and other informal institutions, that support the division of labor and exchange. The presence of transaction costs led Coase (1937) to recognize that the market, which has been idealized in economic theory, is neither free nor perfect. The choice of institutions inevitably involves tradeoff of one kind of another. In "The Nature of the Firm" (Coase, 1937) he saw the market and the firm as two competing mechanisms to organize the economy. In "The Problem of Social Cost" (Coase, 1960), he urged us to study the real world where transaction costs will never be zero and no institutions is perfect. Hence, Coase suggested "economists who study problems of the firm habitually use an opportunity cost approach and compare the receipts obtained from a given combination of factors with alternative business arrangements. It would seem desirable to use a similar approach when dealing with questions of economic policy and to compare the total product yielded by alternative social arrangements"<sup>7</sup> (1960; p. 43).

Coase's call for comparative studies of competing institutional arrangements followed directly his substantive view of economics (Wang 2003). In the formalistic view, economics is a study of scarcity and choice and the economy, if it still has some substance, becomes a system of extreme decentralization. In Coase's substantivist view, the economy is essentially made up of the firm, the market, and various other institutions that together form what he (Coase 1991) called the "institutional structure of production" or simply, "the structure of production" (Coase and Wang 2011). Coase agreed with Pigou that "if self-interest does promote economic welfare, it is because human institutions have been devised to make it so" (1960, p. 29). Hence, to study how one set of institutions perform relative to its alternatives becomes a paramount task for economists. In carrying out this task, Coase emphasized his common sense pragmatism: economic institutions subject to comparative study have to be the

real ones we observe in the economy, not the best or second-best institutions judged by economic theory but cannot be found in the real world.

Coase's repeated emphasis on comparing real institutions has over time inspired a general comparative institutional analysis program especially as pursued by Cheung, Williamson and other transaction cost economists (Williamson, 1991; Rosser Jr and Rosser, 2004; Madhok, 2002; Williamson, 1998; Aoki, 2001). The method is to contrast and compare various forms of industrial organization and institutional arrangements and select the best performing one. In contrast to the prevailing practice of designing the best or second-best institution based on theory, Coase urged us to seek out the best among existing institutions. This program has been widely recognized as an 'empirical success story' (Williamson, 1996) and also appears to be Coase's methodological leitmotif i.e. comparing the costs of alternative arrangements. The next section discusses this in greater details through an inspection of how Williamson went about transforming the intuitions of Coase into a workable theoretical program called transaction cost economics (TCE).

### **3. Williamson's theoretical construction of TCE**

The phrase 'New Institutional Economics' was coined by Oliver Williamson (Coase, 1988b) in order to differentiate from the 'old institutional economics' associated with great intellectuals like John R. Commons, Wesley Mitchell, Thorsten Veblen and others. Coase, in his 1998 article in the *American Economic Review*, summarizes the new institutional program succinctly (ibid. p. 73):

Adam Smith explained that the productivity of the economic system depends on specialization (he says the division of labor), but specialization is only possible if there is exchange-and the lower the costs of exchange (transaction costs if you will), the more specialization there will be and the greater the productivity of the

system. But the costs of exchange depend on the institutions of a country: its legal system, its political system, its social system, its educational system, its culture, and so on. In effect it is the institutions that govern the performance of an economy, and it is this that gives the "new institutional economics" its importance for economists.

Coase continues on to predict that when this complex set of interrelationships, between (and in reference to) various institutions, have been uncovered “then all of economics will have become what we now call ‘the new institutional economics’” (ibid. p.73). However, for this to happen a *different approach* needs to be adopted: “it (the change) will come as a result of economists in branches or subsections of economics adopting a different approach, as indeed is already is happening” (ibid. p.74). It is only natural that we bring in Oliver Williamson at this point who not only operationalized very successfully (along with other peers working on transaction cost economics) the key ingredient of Coasean methodology i.e. comparative institutional analysis, but also brought it closer to making it a substantial metatheoretical framework (Mäki, 2004) .

In spite of the fact that Williamson does not entirely agree with Coase’s views on substantive economics (Williamson, 1994) and believes that economics is ‘distinguished more by its approach than by its subject matter’, he adopted a methodology very similar to that of Coase. Williamson’s TCE is also essentially empirical, applies comparative assessment, emphasizes the framing of the right question (which in his case was: what are the boundaries of the firm?) and applies plural techniques ranging from case studies to orthodox statistical methods. The Williamsonian point of departure is, however, the *predictive* intent of TCE. This guided Williamson towards building a theory which could predict the characteristic transactions under which a particular mode of organization would evolve. Essentially, if an asset was

specific and facing the threat of contractual hazards, then conducting that transaction would be risky in a market and vertical integration would be the preferred mode of organizing such transactions. Similarly when a transaction could be done outside a firm at least cost, the boundaries of a firm would be set. Coase pointed a finger in this direction in his 1937 paper on ‘a gap in economic theory’ and threw light towards *transaction costs*, but did not build up a theory which had predictive empirical content. In our opinion, Williamson not only epitomizes the utility of Coasean methodological pragmatism but also helps in understanding Coase the way he wanted to be.

Williamson (2009) provides a ‘sketch’ of his own ‘pragmatic methodology’ which he claims to draw from the viewpoints of Solow, Friedman and Nicholas Georgescu-Roegen. From Solow he borrows the three precepts of: keep it simple – get it right – make it plausible, which are re-substantiated by the opinions of Friedman and Georgescu-Roegen. Keeping it simple entails stripping away the inessentials so as to ‘focus on the first order effects’ (the Occam’s razor again). Getting it right means making it logical and making it plausible means to keep it as close to reality as possible. Here Williamson invokes Friedman who says ‘(m)ost phenomena are driven by a very few central forces. What a good theory does is to simplify, it pulls out the central forces and gets rid of the rest’ (Friedman, in Snowdon and Vane (1997; p.196). This is essentially a response to complexity and ways of dealing with it. As we saw earlier, complexity was one of the reasons why people like Mill thought it was unviable for methods of induction to work in economics. But it is interesting to note a critical *deviation* in Williamson. The only way earlier economists (barring Coase and a few others) conceived of simplifying complexities was through an increased use of abstract mathematics. The justification stemmed from Friedman’s key methodological propositions: that realism of theory’s assumptions do not matter for its assessment; predictive adequacy should be the main criteria for judgment and; simpler theories are more preferable than those that are

complex (Wong, 1973). Although Friedman was critical of too much mathematical abstraction these proposition allowed economists to delve more into mathematics (Caldwell, 1993). Once that became a methodologically dominant paradigm, the steps prescribed by Solow became contradictory and self-denying.

While mathematical constructions can be often logical and ‘right’, they need not match data or reality. Coase (2006) quotes Niels Bohr whose response to purely mathematical reasoning would be that ‘you are not thinking, you are just being logical’. Coase also quotes Pigou’s description of Marshall who, ‘(although) a skilled mathematician ...used mathematics sparingly. He saw that excessive reliance on this instrument might lead us astray in pursuit of intellectual toys, imaginary problems not conforming to the conditions of real life’ (Coase, 1975). In the face of increased use of mathematical abstraction, instead of ‘pull(ing) out the central forces and get(ting) rid of the rest’, the opposite may happen. This is the primary risk of *reductionism*, a meta-methodological approach which primarily solves complex *physical* phenomena but has found substantial acceptance in economic methodology too. ‘Everything is simple and neat – except, of course, the world’, (Goldenfeld and Kadanoff, 1999). Even in the world of physical science there is an acceptance of the deficiencies of reductionism, specially its inclination for oversimplification (Gallagher and Appenzeller, 1999; Farrell et al., 2013).

Williamson, however, was different and refused to reduce complex phenomena into abstract mathematical formulations. Instead he used a ‘micro-analytic’ approach by moving away from (what Coase called) ‘blackboard economics’ to a fine reading and observation of empirical world. This was the pragmatic element of Williamson’s methodology. The fourth precept of Williamson (in addition to the three of Solow), ‘derive refutable implications to which (often microanalytic) data are brought to bear’(Williamson, 2009; p.146), only

followed naturally. This precept of a predictable, refutable hypothesis led to a theoretical framework which operationalized the core intuitions of Coase and Commons on the utility of transactions as the basic unit of analysis

In our opinion, Williamson's *micro-analytic* approach is under-appreciated although its importance cannot be overemphasized. The finer one looks into a phenomenon, the deeper explanations become. Williamson practiced this by looking into the minute contractual details of transactions; Coase did it by visiting component suppliers. Williamson's micro-analytic approach looks at the dynamics of transactions, the transactors and the rules which govern these bilateral relationships. This approach, consistent with the Coasean world, is far removed from the world of 'blackboard economics'. As Williamson notes in his own words (Williamson, 1976; p.74):

I attempt here to examine franchise bidding issues in somewhat finer microanalytic detail than has been done previously....it was necessary to examine the contracting process in greater detail than had been done previously to discern the types of difficulties which market mediated exchange encounters and, relatedly, to establish in what respects and why internal (collective or hierarchical) organization offers an advantage.

#### **4. On explanation and reasons**

Alexander Field (in his 'On the Explanation of Rules Using Rational Choice Models', 1979), argues that although new institutionalists have brought back the study of institutional variation into economics they differ from the pioneers of classical institutional economists as they 'maintain that variation and change in institutional structures can be explained using the same type of economic models whereby price and quantity vectors are explained' and hence their difference hinges 'on the appropriate methodology of institutional analysis' (p.50).

However our analysis has revealed that neither Coase nor Williamson (two prominent pioneers of new institutionalism) had a methodological divergence from the classical pioneers like Commons or Ely who argued that ‘institutions had to be understood on a case-by-case basis...’ (p. 49-50). Probably where they parted ways was the ability to conclude the process of empirical investigation with an adept theoretical construction. In the next section we explain how abduction transcends the inductive-deductive boundaries and aids in valid theoretical construction without compromising on the substantive focus of economic reasoning. Once this methodological pragmatism of Coase is understood, empirical investigation will not be restricted in its scope as a testing bed of theory, but will regain its role as the fountainhead for explaining the economy and its intricate workings.

#### **4.1 Abduction**

To our knowledge, Coase has never used the term ‘abduction’ in his writing. Not really interested in methodology, Coase probably did not know abduction as a research methodology, certainly not its association with pragmatism. Nonetheless, what Coase practiced in his own research as well as his methodological reflections allows us to identify the pragmatic root of his methodology and its closeness to abduction. Coase’s (Coase, 1975) endorsement of Marshall’s methods – the interplay of deduction and induction – amounts to abduction. Coase’s substantivist view of economics implies that the development of economic theory has to be an integral part of empirical investigation. This is how abduction works in practice. The fruitfulness of this approach is that it points to an alternative approach to theory development.

Coase’s development of his theory of the firm is a good illustration. Detailed examination of facts is guided by research questions (or puzzles). Before his trip to the United States, Coase was intrigued by two questions. First, economic theory since Adam Smith led many to

believe that the market economy was driven by the “invisible hand”. But why there are firms everywhere in a market economy? Second, in the then newly established Soviet Union, Lenin wanted to run the whole economy as a single gigantic firm. If firms are ubiquitous in a market economy, why cannot one organize the whole economy as one firm? Coase’s selection and screening of facts was inevitably guided by the research questions he had in mind. What questions he raised to the businessmen that he interviewed and what facts to observe when he toured manufacturing plants were clearly determined by the two puzzles he had in mind. But the facts he discovered enabled him to compare competing hypotheses. In “The Nature of the Firm”, Coase listed several alternative explanations and he rejected them one by one. This process is what Coase called “the interplay of deduction and induction”, but which as per our premise is abduction-in-disguise. Coase’s endorsement of the Chinese pragmatic tradition, “seeking truth from facts”, however, reveals his affinity to pragmatism. In working on China’s market transformation (Coase and Wang, 2012), Coase was deeply impressed by a key finding of the book that China’s transition to a market economy has been greatly facilitated by an old Confucian teaching, “seeking truth from facts”. Coase concurred with the Chinese thinking that truth cannot be derived from any theory but must come from an investigation of the real world. Coase’s substantivist view of economics calls for empirical studies of how the economy works; this ontological position led Coase to methodological pragmatism, even though Coase rarely used the term in his writing.

Let us elaborate on this approach to economic problems known as the process of *abduction* (Bromley, 2006). It works something like this: if the *rule* (axiom) is that ‘all the beans from this bag are white’; if the *case* is that ‘these beans are from the bag’; then the *result* is that ‘these beans are white’. In *abduction* the order is changed. The starting point is the result, from which one reaches to the case via the rule. First a result is observed – these beans are white; then the rule says – all the beans from this bag are white; then the case is derived that –

therefore, these beans are from the bag. Abduction is therefore, ‘a class of inference that yields explanatory hypothesis for observed phenomena...(w)hereas deduction produces empirical claims that might result in theoretical propositions, abduction starts with particular observed empirical circumstances (the result) and then invokes specific axioms (the rule), and the case (assumptions, and applicability postulates) to produce propositions (testable hypothesis) with the intent of explaining those observed circumstances’ (*ibid p. 96*). Surprise in an observed phenomena is the trigger in an abductive approach and the *why* question takes pre-eminence over the *how* question. Why do firms exist? Why some firms make while others buy? These were the questions Coase (and Williamson) asked and not ‘how do firms optimize among factors of production to maximize profits’. As Bromley (2006; p.99-100) states, ‘(w)e can regard Ronald Coase’s (1937) pioneering work on the nature of the firm to be an example of abduction. In this instance, Coase was clearly motivated by surprise – the existence of firms in the face of deductive belief from classical economics “proving” that the efficiency properties of markets would render firms inefficient and therefore unnecessary’.

Abduction can also be understood as diagnosis. In the words of Charles Sanders Peirce, abduction is a ‘method of hypothesis’ where the task is to construct plausible explanations for observed regularities or irregularities (*ibid. p. 96*). This is a critical element of pragmatism as associated with Peirce and Dewey. Pragmatism is about *reasons*. According to pragmatism, utility is not a reason for a choice. It is a justification. Bromley (2008) uses the example of someone ordering for snails in a restaurant: if the question is asked, ‘why did you order snails?’ the answer ‘because it maximizes my utility’ is not the reason. Once the choice is made, ex-post both the choices could be attributed to utility maximization. If the question was instead, ‘why did you *not* order snails?’ the answer would be again ‘because it maximizes my utility’. As Field (1979; p.52) observes, ‘common sense tells us that if a model can account for both the existence of a phenomenon and its absence, it does not qualify as an explanation

of either'. Therefore, this answer does not actually provide a reason or an explanation for 'choosing' snails (Bromley, 2008; p.2). Abduction, on the other hand, is useful in *explaining*. Counter that with the traditional neo-classical answer for the question: Why do firms exist (...over markets)? It is because firms maximize profits. But as per the logic of pragmatism, that is an ex-post justification. However, the answer that they exist because *they reduce transaction costs* is an ex-ante reason; it explains *why* certain transactions would be carried out in a certain way in the first place. The distinctness of the explanations owing to these two different approaches is non-trivial.

For Coase it is clear that the subject matter and the type of questions asked should take priority over methods or techniques used to analyze them, which according to him, will follow logically and in thematic accordance. This is also in tune with the view Marshall's view on economic methods (Coase, 1975). That Coase had a wide exposure to a variety of subjects and liked studying different things when at college is a marker to his extra-disciplinary leanings, and has had a deep impact on his method (Coase, 1988b). For Coase, the *research question* is of utmost importance. This is exemplified by his own pursuit in trying to find out as a young student at LSE, the answer to a very interesting research question: Why do firms exist when markets can coordinate all the activities (at least as per price theory)? The method which followed included a young Ronald Coase going to the US from England on a travelling scholarship, visiting various industrial firms (including Ford and General Motors and their suppliers), meeting key informants, and investigating through cross-examination, logic and observation until he found the answer.

## 4.2 Fact-finding through plural methods

Abduction requires that economists move into the real world and observe empirical realities. It demands the flexibility in use of plural methods. However, it should come as no surprise since the beginnings of modern economics lie in Adam Smith's visit to the pin factory (Helper, 2000; Vincent-Lancrin, 2003). Yet, modern economics itself is more engaged with mathematical modeling and deductions from secondary information sources. Helper (2000) emphasizes on field visits from her experience in an NBER/Sloan foundation funded project on productivity change, informally known as 'Pin Factory' project. The importance of field visits is also made clear in the words of Martin Feldstein in his address during the January 2000 meeting of the American Economic Association (Feldstein, 2000):

We economists are generally accustomed to getting our insights by reading economic literature, going to seminars, and thinking hard about problems. We elaborate these insights in more or less formal models and then sometimes test these theories with aggregate statistics into micro data. But we rarely go and look and ask. I think that it is a pity. Looking and asking provide insights and suggest hypothesis – and can shoot down wrong ideas – in ways that go beyond introspection and reading.

Another advantage of field work, according to Helper, is that 'fieldwork allows exploration of areas with little pre-existing data or theory'. She gives example from her own dissertation work where her perception of the 'make or buy' decisions in US automobile industry changed a lot after making plant visits and she realized that information exchange and commitment were important for supplier performance, an insight she would have missed otherwise. Fieldwork also facilitates the use of correct data. Helper cites the work of Ichniowski et al. (1997) to demonstrate that it was plant visits which helped them ascertain and collect data on

steel finishing lines and the impact of innovative human resource policies. Moreover, ‘fieldwork provides vivid images that promote intuition’ as Lazear (1996) states in his work ‘(i)t’s one of my most –cited papers – I think it’s because everyone can imagine those guys working harder to install windshields once they’re on piece-rates, and it’s an image they remember a lot more than the regression coefficients’ (Helper, 2000: p.2).

Abductive approaches, like case studies, tend to be more open ended than the deductive approaches. This is because the emphasis on the ‘*why*’ question lends itself to an ex-ante flexibility of responses from subjects. It is open to surprises. Once important insights stem from such an approach, quantitative methods could be used to complement and verify more generalized claims related to those insights. However, “..assum(ing) a priori that the researcher knows the specific informational items that played a central role in the subjects’ behaviors, perceptions and/or decisions (Starr, 2012; p.3)” often blocks lateral flow of new insights. Today’s empirical studies (based on econometrics) are hardly empirical in the Coasean sense. What they do is to refute or confirm quantitative relations between variables while the ‘*why*’ question is left to theory. In practice, empirical studies are used to justify theory – theory predicts some relation between variables, which can be tested by conducting an econometric analysis. Coase’s critique of Friedman (Coase, 1982) is that this is not what economists actually do. As Williamson suggested, you need a theory to beat a theory. This contradicts Friedman’s approach and confirms Coase’s. Given the selection bias (where only econometric analysis that confirms the favored theory is presented), we can understand why this approach is so futile, if not broken. But for economists who believe in “the methodology of positive method”, this is the only way to do empirical studies. The conventional critique of case study (the small N problem, lack of replicability) misses the point. The value of a case study is mainly theoretical – a good case study changes the way we look at the problem (for example, Coase’s study of lighthouse, Cheung’s study of bees, etc.). In Coase’s methodology,

theory-building and fact-finding cannot be separated, whereas for believers in positive methodology, you first come up with a model based on a theory, and then subject it to testing.

## **5. Conclusion**

Alfred Marshall was skeptical of deductive approaches and feared that mathematical abstraction will one day take over the study of real economic system. The institutional methodology of Coase offers some relief. Coase's approach stems from his belief that the study of an economic system is substantive and should use empirical observation and comparative assessments. Coase's methodological pragmatism rests on and is derived from this substantivist view of economics. Coase's research program of industrial organizations in general and the development of his theory of the firm in particular have shown that Coase's methodology points to a fruitful alternative approach to theory development. Coase's direct, comparative, and pluralistic approach makes up the core features of his methodological pragmatism. Williamson adds a predictive element to this by developing a verifiable and highly successful branch of economic theory through his focus on the micro-analytics of economic relationships. We have shown that, together, this is steeped in the methodological tradition of pragmatism and the inferential method of abduction. This is a critical lesson for general economic methodology which otherwise excessively relies on deduction from theoretical construction. Abduction invests the researcher with the ability to move from empirical observation to theory-building and is compatible with plural methods. Deeper appreciation and wider application of abduction will not only help allay Marshall's fears and keep economics firmly grounded in but also hopefully help realize Coase's vision that all of economics will be transformed into the new institutional economics.

## References

- AOKI, M. 2001. *Toward a Comparative Institutional Analysis*, MIT Press.
- BAIN, J. S. 1968. *Industrial Organization (2nd ed.)*, Wiley, New York.
- BECKER, G. S. 1968. Crime and Punishment: An Economic Approach. *The Journal of Political Economy*, 76.2, 169-217.
- BERTRAND, E. 2005. The Coasean Analysis of Lighthouse Financing: Myths and Realities. *Cambridge Journal of Economics*, 30.3, 389-402.
- BLANCHARD, O. J. 1987. Neoclassical Synthesis. In: J. EATWELL, M. M. A. P. N. (ed.) *The New Palgrave: A Dictionary of Economics Vol. 3*. Macmillan: London.
- BLAUG, M. 1992. *The Methodology of Economics: Or, How Economists Explain*, Cambridge University Press.
- BROMLEY, D. W. 2006. *Sufficient Reason: Volitional Pragmatism and the Meaning of Economic Institutions*, Princeton University Press.
- BROMLEY, D. W. 2008. Volitional Pragmatism. *Ecological Economics*, 68.1, 1-13.
- CALDWELL, B. J. 1993. *The Philosophy and Methodology of Economics*, Edward Elgar.
- CAVES, R. 1972. *American Industry: Structure, Conduct, and Performance*, Englewood Cliffs, NJ: Prentice-Hall.
- COASE, R. H. 1937. The Nature of the Firm. *Economica*, N.S. 4.16, 386-405.
- COASE, R. H. 1960. The Problem of Social Cost. *Journal of Law and Economics*, 3, 1-44.
- COASE, R. H. 1972. Industrial Organization: A Proposal for Research. *Economic Research: Retrospect and Prospect Vol 3: Policy Issues and Research Opportunities in Industrial Organization. NBER*, 59-73.
- COASE, R. H. 1974. The Lighthouse in Economics. *Journal of Law and Economics*, 17.2, 357-376.
- COASE, R. H. 1975. Marshall on Method. *Journal of Law and Economics*, 18.1, 25-31.
- COASE, R. H. 1982. How Should Economists Choose? *The G. Warren Nutter Lectures in Political Economy*, American Enterprise Institute for Public Policy Research, Washington, DC.
- COASE, R. H. 1988a. *The Firm, The Market, and The Law* University of Chicago Press.
- COASE, R. H. 1988b. The Nature of the Firm: Origin. *Journal of Law, Economics and Organization*, 4.1, 3-17.
- COASE, R. H. 2000. The Acquisition of Fisher Body by General Motors. *Journal of Law and Economics*, 43.1, 15-31.
- COASE, R. H. 2006. The Conduct of Economics: The Example of Fisher Body and General Motors. *Journal of Economics and Management Strategy*, 15.2, 255-278.
- COASE, R. H. 2012. Saving Economics from Economists. *Harvard Business Review*, December.
- COASE, R. H. & WANG, N. 2012. *How China Became Capitalist*, Palgrave Macmillan
- DE JONG, H. W. & SHEPHERD, W. G. 2007. *Pioneers of Industrial Organization: How the Economics of Competition and Monopoly Took Shape*, Edward Elgar Publishing.
- FARRELL, K., LUZZATI, T., VAN DEN HOVE, S. & EDS. 2013. *Beyond Reductionism: A Passion for Interdisciplinarity*, Routledge.
- FELDSTEIN, M. 2000. Preface: The NBER-Sloan Project on Productivity Change." Industrial Technology and Productivity: Incorporating Learning from Plant Visits and Interviews into Economic Research". *National Bureau of Economic Research (NBER)*. Cambridge, MA.
- FIELD, A. J. 1979. On the Explanation of Rules Using Rational Choice Models. *Journal of Economic Issues*, 13.1, 49-72.

- FRIEDMAN, M. 1966. *The Methodology of Positive Economics. Essays in Positive Economics.* University of Chicago Press.
- GALLAGHER, R. & APPENZELLER, T. 1999. Beyond Reductionism. *Science*, 284.5411, 79.
- GOLDENFELD, N. & KADANOFF, L. P. 1999. Simple Lessons from Complexity. *Science*, 284.5411, 87-89.
- HAUSMAN, D. M. 1989. Economic Methodology in a Nutshell. *The Journal of Economic Perspectives*, 3.2, 115-127.
- HELPER, S. 2000. "Economists and Field Research:" You Can Observe a Lot Just by Watching. *American Economic Review*, 90.2, 228-232.
- HODGSON, G. M. 2009. The Great Crash of 2008 and the Reform of Economics. *Cambridge Journal of Economics*, 33.6, 1205-1221.
- HOVENKAMP, H. 1995. Law and Economics in the United States: A Brief Historical Survey. *Cambridge Journal of Economics*, 19.2, 331-352.
- HSIUNG, B. 2001. A Methodological Comparison of Ronald Coase and Gary Becker. *American Law and Economics Review*, 3.1, 186-198.
- ICHNIOWSKI, C., SHAW, K. & PRENNUSHI, G. 1997. The Effects of Human Resource Management Practices on Productivity: A Study of Steel Finishing Lines. *American Economic Review*, 87.3, 291-313.
- LANDES, W. M. 1997. The Art of Law and Economics: An Autobiographical Essay. *The American Economist*, 41.1, 31-42.
- LAZEAR, E. P. 1996. *Performance Pay and Productivity. National Bureau of Economic Research (NBER).* Cambridge, MA.
- MADHOK, A. 2002. Reassessing the Fundamentals and Beyond: Ronald Coase, The Transaction Cost and Resource Based Theories of the Firm and the Institutional Structure of Production. *Strategic Management Journal*, 23.6, 535-550.
- MÄKI, U. 1998. Against Posner Against Coase Against Theory. *Cambridge Journal of Economics*, 22.5, 587-595.
- MÄKI, U. 2004. Theoretical Isolation and Explanatory Progress: Transaction Cost Economics and the Dynamics of Dispute. *Cambridge Journal of Economics*, 28.3, 319-346.
- MARSHALL, A. 1885. The Present Position of Economics. In: PIGOU, A. C. (ed.) *Memorials of Alfred Marshall.* London: Macmillan, 1925, pp. 152-174.
- MCCLOSKEY, D. N. 1994. *Knowledge and Persuasion in Economics,* Cambridge University Press.
- MEDEMA, S. E. 1997. *Coasean Economics: Law and Economics and the New Institutional Economics,* Boston: Kluwer Academic Publishers.
- PELTZMAN, S. 2011. Ronald Coase and the Methodology of Economics. *Journal of Law and Economics*, 54.4, S15-S29.
- POPPER, K. R. 1959. *The Logic of Scientific Discovery,* London: Hutchinson.
- POSNER, R. A. 1993. Nobel laureate: Ronald Coase and methodology. *The Journal of Economic Perspectives*, 7.4, 195-210.
- ROBBINS, L. 1932. *An Essay on the Nature and Significance of Economic Science,* Macmillan, London.
- ROSSER JR, J. B. & ROSSER, M. V. 2004. *Comparative Economics in a Transforming World Economy,* MIT Press.
- SNOWDON, B. & VANE, H. 1997. Modern Macroeconomics and its Evolution From a Monetarist Perspective: An Interview With Professor Milton Friedman. *Journal of Economic Studies*, 24.4, 192-222.

- STARR, M. A. 2012. Qualitative and Mixed-Methods Research in Economics: Surprising Growth, Promising Future. *Journal of Economic Surveys*, Early View.
- STIGLER, G. J. 1968. *The Organization of Industry*, University of Chicago Press.
- VINCENT-LANCRIN, S. 2003. Adam Smith and the Division of Labour: Is there a Difference Between Organization and Market? *Cambridge Journal of Economics*, 27.2, 209-224.
- WANG, N. 2003. Coase on the Nature of Economics. *Cambridge Journal of Economics*, 27.6, 807-829.
- WILLIAMSON, O. E. 1976. Franchise Bidding for Natural Monopolies-In General and with Respect to CATV. *The Bell Journal of Economics*, 7.1, 73-104.
- WILLIAMSON, O. E. 1991. Comparative Economic Organization: The Analysis of Discrete Structural Alternatives. *Administrative Science Quarterly*, 36, 269-296.
- WILLIAMSON, O. E. 1994. Correspondence: Evaluating Coase. *The Journal of Economic Perspectives*, 8.2, 201-209.
- WILLIAMSON, O. E. 1996. Transaction Cost Economics and the Carnegie Connection. *Journal of Economic Behavior & Organization*, 31.2, 149-155.
- WILLIAMSON, O. E. 1998. The Institutions of Governance. *American Economic Review*, 88.2, 75-79.
- WILLIAMSON, O. E. 2009. Pragmatic Methodology: A Sketch, With Applications to Transaction Cost Economics. *Journal of Economic Methodology*, 16.2, 145-157.
- WONG, S. 1973. The "F-Twist" and the Methodology of Paul Samuelson. *The American Economic Review*, 63.3, 312-325.

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<sup>1</sup> <http://www.youtube.com/watch?v=04zFygmeCUA>

<sup>2</sup> Induction is concerned with ‘properties of all members of a class based on an examination of a subset of that class’ (Bromley, 2006). It is the process of going from case (assumptions) to result (observed phenomena) to rule (general proposition). The classic inductive proposition (*ibid.*), -all swans are white- is based on an assumption being confirmed by an observation of a subset of swans leading to a general rule. However, swans in Australia are black (*ibid.*) and therefore the rule based on induction does not apply outside the observed subset.

<sup>3</sup> What (McCloskey, 1994) ridiculed as “A-prime/C-prime theorem” is a good illustration of Coase’s critique of predictionism. The theorem satirically goes like this: “For each and every set of assumptions A implying a conclusion C, there exists a set of alternative assumptions, A’, arbitrarily close to A, such that A’ implies an alternative conclusion, C’, arbitrarily far from C” (p. 235). The conclusion is open as long as assumptions can be arbitrarily selected. A theory loses much of its biting force if its assumptions are no longer constrained by realism.

<sup>4</sup> Even though this paper did not appear until 1937, its major arguments had already been developed by 1932, right before Coase started his first job at Dundee School of Economics and Commerce. For Coase’s own detailed account, see (Coase, 1988b)

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<sup>5</sup> In an edited volume, *Pioneers of Industrial Organization* (de Jong and Shepherd, 2007), Coase is not included. In contrast, all the three economists that Coase singled out, Stigler, Bain, and Caves, are honored as pioneers of industrial organization. The omission of Coase (and Williamson) becomes understandable after we check out what is covered under “industrial organization”. In the introductory chapter, the editors explain that “This book is about pioneers, about the scholars who have created the economics field known as ‘industrial organization’. The field’s core is about: (i) competition, the driving force of most modern markets, and (ii) monopoly power, which interferes with competition’s good results” (p. xix). A bit later, they continue, “the pioneering in this field has involved research both into the nature and facts of markets, and into the public policies that might be best” (p. xxii). Curiously, “industrial organization” is not even mentioned.

<sup>6</sup> Some have used the term *benchmark* approach to describe Coase’s emphasis on comparative analysis (Hsiung, 2001). But in Coase’s comparative approach, no choice of institutional arrangement is favored ontologically or methodologically as a benchmark. For example, in “The Nature of the Firm”, the firm and the market are presented as two alternative ways to organize production. While economists often start from the market, believing that “the normal economic system works itself” (Coase 1937, p. 387), Lenin saw the whole economy as a single giant firm. Coase questioned both views in formulating his comparative approach.

<sup>7</sup> His persistent resistance to government intervention can only be understood from this methodological lens of comparative assessment, rather than an alleged dogmatic preference for private arrangements.